United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued October 20, 1994 Decided November 29, 1994

No. 94-1170

ALABAMA POWER COMPANY, *ET AL.*,
PETITIONERS

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

NATURAL RESOURCES DEFENSE COUNCIL,
INTERVENOR

No. 94-1329

NATIONAL COAL ASSOCIATION,
PETITIONER

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

Petitions for Review of a Rule of the
United States Environmental Protection Agency

F. William Brownell argued the cause for the petitioners. On brief were *Henry V. Nickel, Craig S. Harrison, David S. Harlow, Harold P. Quinn, Jr.* and *Peter A. Gabauer, Jr.*

Robert J. Martineau, Jr., Attorney, Environmental Protection Agency, and *Christopher S. Vaden,* Attorney, Department of Justice, argued the cause for the respondent. On brief were *Lois J. Schiffer,* Assistant Attorney General, *Naikang Tsao,* Attorney, Department of Justice, *Jean C. Nelson,* General Counsel, and *Alan Eckert,* Associate General Counsel, Environmental Protection Agency.

On brief for the intervenor were *David G. Hawkins* and *David M. Driesen.*

Before BUCKLEY, GINSBURG and HENDERSON, *Circuit Judges.*

Opinion for the court filed by *Circuit Judge* HENDERSON.

KAREN LECRAFT HENDERSON, *Circuit Judge:* In an effort to control acid rain, Congress amended the Clean Air Act in 1990 to limit the amount of nitrogen oxide particles that coal-burning electric power facilities can emit into the atmosphere. Many of the nation's electric utilities and the National Coal Association now petition for review of the Environmental Protection Agency's rule partially implementing that legislation. The petitioners contend that the rule impermissibly expands the 1990 amendments by interpreting the statutory term "low NO_x burner technology" more broadly than Congress intended and that the agency's failure to issue the rule by its statutorily prescribed deadline should postpone their compliance obligations. We agree that the agency exceeded its statutory authority and accordingly vacate the rule.

I. BACKGROUND

In 1990 Congress determined that emissions resulting from the combustion of fossil fuels constitute a major source of the atmospheric phenomenon known as acid deposition or, more popularly, acid rain. Concerned that acid rain threatens natural resources and public health, it enacted programs to limit the levels of nitrogen oxides (NO_x) and sulfur dioxides (SO_2) emitted by specific sources. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399, 2584-634 (1990 amendments); *see* 42 U.S.C. § 7651 (acid deposition program findings and purposes).

The NO_x reduction program included in section 407 of the 1990 amendments requires the Administrator of the Environmental Protection Agency (EPA or agency) to set, by rule, mandatory limits on NO_x emissions from certain types of coal-burning boilers used by electric power utilities. The boilers are separated into two groups. 42 U.S.C. § 7651f (section 407). The group at issue here includes "tangentially fired boilers" and "dry bottom wall-fired boilers."[1] 42 U.S.C. § 7651f(b)(1). The limits set by the Administrator must not exceed maximum rates specified by Congress in section 407 unless the Administrator determines that the statutory rates cannot be achieved using "low NO_x burner technology," *id.*, a recurring phrase whose meaning is the central issue on appeal. The statute

[1]The provision initially applies only to "Phase I" facilities predominantly located in the eastern and midwestern United States and listed in Table A appended to 42 U.S.C. § 7651c. A "tangentially fired" boiler's burners are located in the corner of the furnace and a "wall-fired" boiler's burners are placed along the furnace wall. Joint Appendix (JA) 28.

requires the Administrator to determine the NO_x limits within eighteen months of its enactment, translating to a deadline of May 15, 1992. *Id.*; 104 Stat. at 2712. The statute requires the utilities to reach compliance by January 1, 1995. *See* 42 U.S.C. § 7651f(b)(1).

A utility can avoid the prescribed NO_x limit, however, if it obtains an "alternative emission limitation" (AEL) from the Administrator. The Administrator must authorize an AEL if a utility demonstrates that it cannot meet the limit by using "low NO_x burner technology." 42 U.S.C. § 7651f(d).[2] The statute further provides that the EPA cannot require a utility to install "any additional control technology beyond low NO_x burners" in order to be eligible for an AEL. *Id.* The terms "low NO_x burner technology" and "low NO_x burners" in effect set the outer boundaries of a utility's duty to reduce NO_x emissions under the 1990 amendments because the Administrator can increase the emission limit if "low NO_x burner technology" cannot meet that limit and a facility must be granted an AEL allowing it to emit a greater level of NO_x if it cannot comply with the prescribed limit using "low NO_x burners."

Accordingly, the EPA devoted considerable attention to defining the term "low NO_x burner technology" during the rulemaking process. Substantial controversy arose among the agency, interested parties and experts regarding whether the term refers only to burners designed to reduce NO_x emissions or, construed more broadly, also to the emission control method known as overfire air.[3]

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[2]Specifically, a utility seeking an AEL must (1) show that it has installed appropriate control equipment designed to meet the applicable NO_x limit; (2) show that it has properly operated the equipment for fifteen months (or such other period as is specified in the regulation) and that it has generated data demonstrating that the limit cannot be met; and (3) specify a NO_x emission rate that can be met. 42 U.S.C. §§ 7651f(d)(1)-(d)(3).

[3]A brief technical background, on which the parties are largely agreed, is necessary at this point to resolve the controversy. NO_x emissions are a byproduct of burning coal. Low NO_x burners and overfire air are both emission control methods designed to limit the formation of NO_x by controlling the amount of oxygen available to react with the nitrogen in the coal as the coal burns. Low NO_x burners accomplish the goal by limiting the amount of oxygen introduced through the burner to the flame. The overfire air technique (also known as "air staging") removes oxygen from around the burner and reintroduces it at a less volatile stage of the process through a port located above the burner in the furnace. *See* Babcock & Wilcox, *Steam* 13-7 (S.C. Stultz & J.B. Kitto eds., 40th ed.), *reprinted at* JA 281, 288. Low NO_x burners normally are used without overfire air. *See id.* ("[F]rom a cost and performance perspective, the use of NO_x ports should be minimized where possible. Advanced low NO_x burners can frequently meet emission control

The dispute over whether the statutory term "low NO_x burner technology" includes overfire air was a primary focus of the regulatory proceedings and contributed to a significant delay in the issuance of the final rule. An advisory committee of interest group representatives formed by the agency in July 1991 to attempt a negotiated rulemaking failed to resolve the issue and the EPA did not issue a proposed rule for comment until November 1992, six months after the statutory deadline for issuance of a final regulation. 57 Fed. Reg. 55,632 (1992).

The EPA's final rule, not promulgated until March 1994, defines "low NO_x burner technology" to include overfire air and offers four reasons for its conclusion. 59 Fed. Reg. 13,538 (1994) (*Final Rule*). First, the agency found that low NO_x burners and overfire air should be considered a common technology because both reduce NO_x emissions through modification of the combustion process. "[B]ased on the combustion chemistry, EPA believes it would be arbitrary and illogical to artificially exclude the use of overfire air which is an integral part of the combustion staging process...." *Id.* at 13542. Second, the EPA determined that the relevant technical literature frequently refers to low NO_x burners and overfire air as "integral components of a complete combustion system and not as separate technologies." *Id.* Third, the agency concluded that a broad definition better effectuates congressional intent because more facilities will be required to meet the prescribed emission limits. *Id.*[4]

The EPA also took two other actions challenged here. First, it refused to postpone the utilities' January 1, 1995 compliance deadline to allow for its own delay in issuing the implementing rules. *See id.* at 13,566 (§ 76.5(a)). Second, the agency failed to provide for conditional approval of alternative "emissions averaging" plans as the utilities urged. JA 955-56.

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requirements without the use of NO_x ports."); Energy Technology Consultants, Inc., *Experience With Wall-Fired Overfire Air and Low NO_x Burner Retrofits on Utility Coal-Fired Boilers* 6 (1993), *reprinted at* JA 465, 471. ("AOFA [advanced overfire air] and LNB [low NO_x burners] had never been combined in a retrofit before November 1990. Even today, no new boilers in the United States employ AOFA....") Low NO_x burners and overfire air are alike, however, in that both affect the combustion process by limiting oxygen.

[4]The fourth reason, that "the actual practices of the industry demonstrate that overfire air is common and available low NO_x burner technology," is in effect a reformulation of the first three. 59 Fed. Reg. at 13,543.

II. DISCUSSION

A. *Definition of "Low NO_x Burner Technology"*

The petitioners complain, first, that the EPA's interpretation of the term "low NO_x burner technology" to include overfire air is not authorized by the statute and, second, that the agency's rulemaking was conducted in an arbitrary and capricious manner. Under the judicial review provision of the Clean Air Act, the court may reverse a rulemaking on either ground. 42 U.S.C. § 7607(d)(9); 42 U.S.C. § 7607(d)(1)(F). Because the issue of the agency's statutory authority is dispositive, we do not reach the petitioners' second complaint.

Two provisions of section 407 contain the disputed statutory language. Subsection (b)(1) requires the Administrator to set NO_x emission standards within the statutory limits unless the Administrator determines that they cannot be met using "low NO_x burner technology."[5] Subsection (d) provides for the issuance of AELs. It requires the Administrator to authorize an AEL if a utility cannot meet the NO_x standards using "low NO_x burner technology." It further provides that the agency cannot require a utility to install "any additional control technology beyond low NO_x burners" to obtain an AEL.[6] The parties agree that Congress did not define either term and vary somewhat

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[5]The relevant text of section 407(b)(1) reads:

> Not later than eighteen months after enactment of the Clean Air Act Amendments of 1990, the Administrator shall by regulation establish annual allowable emission limitations for nitrogen oxides for the types of utility boilers listed below, which limitations shall not exceed the rates listed below: *Provided,* That the Administrator may set a rate higher than that listed for any type of utility boiler if the Administrator finds that the maximum listed rate for that boiler type cannot be achieved using *low NO_x burner technology.*

42 U.S.C. § 7651f(b)(1) (emphasis added).

[6]Section 407(d) reads in relevant part:

> The permitting authority shall, upon request of an owner or operator of a unit subject to this section, authorize an emission limitation less stringent than the applicable limitation established under subsection (b)(1) ... of this section upon a determination that—
>
> (1) a unit subject to subsection (b)(1) cannot meet the applicable limitation using *low NO_x burner technology* . ...

42 U.S.C. § 7651f(d) (emphasis added).

in their interpretation of Congress's intent in using the two terms.[7] They then clearly part company. The petitioners argue that the statute plainly prevents the EPA from requiring installation of any equipment in addition to low NO_x burners. The agency responds that section 407 is ambiguous and that its interpretation is reasonable and entitled to deference because both burners and overfire air modify the combustion process.

Our primary inquiry is whether Congress has directly spoken to the question. "If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Chevron U.S.A., Inc. v. NRDC,* 467 U.S. 837, 842-43 (1984). To determine if Congress so expressed its intent, we apply traditional tools of statutory interpretation to the text at issue as well as to the language and design of the statute as a whole. *Ohio v. United States Dep't of the Interior,* 880 F.2d 432, 441 (D.C. Cir. 1989) (citing *K Mart Corp. v. Cartier, Inc.,* 486 U.S. 281, 291 (1988)). "If the court, having studied the statutory text, structure, and history, is left with the unmistakable conclusion that Congress had an intention on the precise question at issue, "that intention is the law and must be given effect.' " *Id.* (quoting *Chevron,* 467 U.S. at 843 n.9). In the absence of a clearly stated intent we defer to the agency's construction of the statute so long as it is reasonable, under the so-called second step of the *Chevron* analysis. 467 U.S. at 844-45.

We begin with the statutory text. The Supreme Court has declared that "where Congress has used technical words or terms of art, "it [is] proper to explain them by referring to the art or science to which they [are] appropriate.' " *Corning Glass Works v. Brennan,* 417 U.S. 188, 201 (1974)

Section 407(d) also provides that "[u]nits subject to subsection (b)(1) for which an alternative emission limitation is established shall not be required to install any additional control technology beyond *low NO_x burners.*" *Id.* (emphasis added).

[7]In its brief the agency asserts "the reading most consistent with the statutory structure and purpose is that "low NO_x burners' has the same meaning as "low NO_x burner technology,' but does not restrict the reasonable interpretation of the latter phrase." EPA Br. at 20-21. Intervenor Natural Resources Defense Council (NRDC) similarly acknowledges that "the term "low NO_x burners' is used interchangeably with "low NO_x burner technology' in § 407(d)." NRDC Br. at 20. The petitioners assert that "[u]nder a plain language approach to statutory interpretation ... a "low NO_x burner' would be a burner with low NO_x characteristics, and "low NO_x burner technology' the technology of applying low NO_x burners to reduce NO_x." Pet. Br. at 31.

(quoting *Greenleaf v. Goodrich,* 101 U.S. 278, 284 (1880) (alterations in original)). "In the absence of contrary indication, we assume that when a statute uses such a term, Congress intended it to have its established meaning." *McDermott Int'l., Inc. v. Wilander,* 498 U.S. 337, 342 (1991).[8]

The agency argues that the term "low NO_x burners" includes overfire air because both regulate the combustion process and frequently are referred to in combination in the technical literature, propositions generally supported by the record. Its analysis, however, does not address the dispositive question whether the term "low NO_x burner *technology*" incorporates the combination of low NO_x burners and overfire air as an established meaning in the field. We conclude that it does not. First, none of the technical literature in the record relied on by the EPA indicates that the term "low NO_x burner technology" is commonly used to refer to the combination of low NO_x burners and overfire air. Indeed, one of the few explicit references to the term "low NO_x burner technology" immediately follows a reference to "overfire air technology," indicating that overfire air is separate from "low NO_x burner technology." Joint Appendix (JA) 82 (Department of Energy Report to Congress on Clean Coal Technology Program, November 1989).[9]

The technical literature included in the rulemaking docket suggests instead that variants of the term "*combustion* technology" most frequently apply to the combination of low NO_x burners and overfire air. *See* JA 67 ("combustion NO_x technologies"); JA 116 ("commercially available low NO_x combustion technologies"); JA 141 ("[c]ombustion modification techniques"); JA 287 ("[l]ow NO_x combustion systems"). Such routine use of "combustion technology" is consistent with the agency's

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[8]The EPA's brief assumes without detailed explanation that section 407 is ambiguous because the term "low NO_x burner technology" is not defined by Congress. In *McDermott Int'l, Inc. v. Wilander,* however, the Supreme Court determined that the term "seaman" had an established meaning notwithstanding the absence of a statutory definition. 498 U.S. at 342.

[9]The Energy Department report reads: "The use of overfire air technology, however, resulted in boiler slagging problems and carbon carryover. The LNB [low NO_x burner] was developed to solve these problems. Presently, low NO_x burner technology is available from all United States boiler manufacturers...." JA 82. A separate reference to the term is inconclusive. One paper included in the rulemaking docket opines that "[l]ow NO_x burner technology, including overfire air (OFA) represents a promising retrofit technology for controlling NO_x." JA 96. On the one hand, the language can be read to suggest that low NO_x burner technology includes overfire air. On the other hand, if overfire air were inherent in low NO_x burner technology, the additional reference to it would be superfluous.

position that low NO_x burners and overfire air are a common technology because both reduce NO_x emissions as coal burns. It does not establish, however, that Congress intended the *different* term "low NO_x burner technology" to refer to that combination when the term apparently had not been so used in the field.

We further conclude that the correct reading of section 407 as a whole is that the term "low NO_x burner technology" is an unambiguous reference to low NO_x burners. Statutory text is to be interpreted to give consistent and harmonious effect to each of its provisions. *See, e.g., Citizens to Save Spencer County v. EPA,* 600 F.2d 844, 870 & n.118 (D.C. Cir. 1979). If "low NO_x burner technology" is interpreted to mean burners only, it harmonizes with Congress's unambiguous statement that a utility seeking an AEL is not required to install *technology* "beyond low NO_x burners." By contrast, construing the term to include overfire air would allow the Administrator to set emission standards and evaluate them under the AEL provision *assuming* the use of overfire air, despite the express statutory language that a utility seeking an AEL need not install equipment beyond low NO_x burners. In the absence of any indication that Congress intended to draw a distinction through use of the different language (and the EPA has pointed us to none), the logical reading of "low NO_x burner technology" is that it excludes overfire air.[10]

The AEL provision also demonstrates that Congress intended to tie the obligation of utilities to meet the NO_x emission limit to the use of low NO_x burners. The EPA apparently thought that Congress intended to include overfire air within "low NO_x burner technology" because its exclusion "would enable many utilities to obtain AELs and emit at levels higher than the applicable emission limitation without considering the full range of low NO_x combustion techniques." *Final Rule* at 13,543. The AEL provision manifests a contrary intent. Congress did not intend to require utilities

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[10]The legislative history of section 407 further supports our conclusion that Congress meant to prohibit the agency from devising NO_x emission standards that require the use of equipment in addition to low NO_x burners. The Conference Report of the House of Representatives, addressing "utility NO_x emissions," explained: "The NO_x reductions from existing units mandated under section 407 are to be accomplished by use of conventional, available burner technology ("low-NO_x' burners)." H. Conf. Rep. No. 101-952 (1992) at 344. The statement equates "burner technology" with low NO_x burners and makes no reference to overfire air, reinforcing the conclusion that the text of the statute provides likewise.

to consider the "full range of low NO_x combustion techniques" because it *expressly* provided that utilities not be required to install or use any equipment beyond low NO_x burners in their efforts to comply with the NO_x emission standards. Likewise, the AEL provision's mandatory language ("The permitting authority *shall* ... authorize an emission limitation less stringent than the applicable limitation ...." (emphasis added)) indicates that the agency's view that Congress intended to limit the issuance of AELs is erroneous.

In *Natural Resources Defense Council v. Thomas,* 805 F.2d 410 (D.C. Cir. 1986), we rejected an argument, similar to the EPA's position here, that NO_x emission standards set by the agency for heavy duty motor vehicles under 42 U.S.C. § 7521(a)(3) should be based on the "technological leader" of the industry in order to obtain maximum emission reduction. We determined that an express intent to maximize emission reduction could not be read into the statute without a clearer statement from Congress, noting that the then-existing provisions of 42 U.S.C. § 7521(a)(3)(A)(iii) required the Administrator to balance the emission goal against cost and other factors.[11] 805 F.2d at 420-21. Similarly, the AEL provision demonstrates Congress's intent that the statutory emission goals are to be achieved but only by using certain technology.[12]

The statutory text, structure and history of section 407 thus support the "unmistakable conclusion" that Congress unambiguously intended the term "low NO_x burner technology" to encompass only low NO_x burners, not overfire air. "[W]e have here an instance where the Congress, presumably after due consideration, has indicated by plain language a preference to pursue its stated goals by what EPA asserts are less than optimal means. In such case, neither this court nor the agency is free to ignore the plain meaning of the statute and to substitute its policy judgment for that of Congress." *Alabama Power Co. v. Costle,* 636 F.2d 323, 365 (D.C. Cir. 1979). Accordingly, we

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[11]The cited provision was subsequently amended; however, a similar requirement was added to 42 U.S.C. § 7521(a)(3)(A)(i).

[12]The agency cites *Mobil Oil Corp. v. EPA,* 871 F.2d 149 (D.C. Cir. 1989) to support its contention it has the authority to construe a variance provision narrowly to ensure that the statutory scheme is not undermined. In that case, we reviewed the EPA's interpretation of an ambiguous statute deferentially to determine whether it was a reasonable interpretation. *Id.* at 152. Here, the AEL provision unambiguously forecloses the EPA's interpretation.

conclude that the rule exceeds the EPA's statutory authority and must be vacated.

B. *Statutory Deadline*

The utilities also challenge the agency's refusal to extend their deadline for compliance with the NO_x emission standard beyond the January 1, 1995 deadline prescribed in section 407. They argue that the standard was not promulgated in accordance with the statute because of the EPA's failure to do so until nearly two years after its own statutory deadline, and that the delay unfairly deprives them of an adequate opportunity to make preparations necessary to comply. Our decision to vacate the rule moots the issue.

Section 407 provides that "After January 1, 1995, it shall be unlawful for any unit that is an affected unit on that date and is of the type listed in this paragraph to emit nitrogen oxides in excess of the emission rates *set by the Administrator pursuant to this paragraph,*" which requires the standard to be set "by regulation." 42 U.S.C. § 7651f(b)(1) (Supp. IV 1992) (emphasis added). Because the utilities are obligated to comply with NO_x emission limits set by regulation, the effect of our vacatur of the regulation is to suspend the utilities' compliance obligation pending further rulemaking by the agency. "To "vacate' ... means "to annul; to cancel or rescind; to declare, to make, or to render, void; to defeat; to deprive of force; to make of no authority or validity; to set aside.' " *Action on Smoking and Health v. Civil Aeronautics Board,* 713 F.2d 795, 797 (D.C. Cir. 1983) (citations omitted).

The EPA's new NO_x emission standards will undoubtedly take effect after the statutory deadline of January 1, 1995. In this regard, we note the agency's representation at oral argument that it would be inclined to exercise its enforcement discretion in favor of the utilities in order to account for delay in the rulemaking process.

C. *Conditional Averaging Plans*

Finally, the petitioners assert that the EPA's decision not to allow utilities to obtain conditional approval in advance of alternative "emissions averaging" plans was arbitrary in view of the EPA's decision to allow for conditional approval of such plans in its regulations governing sulfur dioxide

(SO_2) emissions. 40 C.F.R. § 72.40(c).[13] Their contention has no merit. The record reveals that the utilities submitted only minimal comments on the averaging issue during the rulemaking. JA 677-79, 861-62. More important, the agency reasonably responded to the comments, explaining that it had chosen not to provide for such plans in its discretion because of distinctions between the NO_x and SO_2 programs that would have resulted in a significantly more intrusive administrative burden here. JA 956.

For the foregoing reasons, we vacate the regulation and remand it for further consideration in light of this opinion.

So ordered.

[13]Under the SO_2 regulations, a conditionally approved plan may be used if unforeseen events occur preventing compliance with a utility's primary compliance plan.